

DECLARATION UNDER 37 C.F.R. 1.132



#11/P111  
9-26-02  
RECEIVED  
SEP 25 2002  
TC 1700 MAIL ROOM

I, **Paul David CASE**, hereby declare:

1. I reside at 18 Redhill Crescent, Bassett  
Southampton SO16 7BQ, United Kingdom.
2. I received a degree of Bachelor of Science in  
Applied Chemistry from Trent Polytechnic, Nottingham  
in 1978.
3. I am presently a Principal Scientist of British-  
American Tobacco Company Limited in Southampton,  
United Kingdom and have been an employee of British-  
American Tobacco Company Limited since 1978 and have  
held a number of scientific positions within the  
Company, including Research Scientist and Senior  
Research Scientist.
4. I have been closely involved with a number of  
projects concerning papers for use in the production  
of smoking articles. I also have a significant  
amount of experience and knowledge in paper  
specifications and the supply of papers with given  
characteristics for use in the production of smoking  
articles.
5. I understand that in a final Office Action mailed on  
22 May 2002, Claims 9-15 and 27-30 of U.S. patent  
application No. 09/582,232 were rejected.

6. The attached document is a true and accurate version of a part of a document produced by me and dated 29 September 1997 on the subject of performance of cigarette papers incorporating varying forms of permeability control. The content of these documents is to the best of my knowledge accurate and incorporates terminology well-known in the field of wrappers for smoking articles at the time it was written. The supplier codes detailed on the Tables are the original paper codes provided by the paper supplier, and have not in any way been modified by BAT.
7. I understand the permeability of a wrapper for a smoking article to mean, in the absence of any indication relating to additional perforations, the inherent or natural permeability. It is customary to indicate that a wrapper has been perforated by electrostatic, mechanical or other means by expressly referring to such a procedure or by referring to the net permeability of a wrapper. Having read the original patent application, being the subject of U.S. Patent Application No. 09/582,232, I understand that no mention is made of additional perforations to the paper used therein and that the permeability of the paper refers to the inherent permeability of the paper.
8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made

with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardise the validity of the application or any patent issuing thereon.

Paul Case

**Paul David CASE**

6/9/02.  
**Date**

TABLE 1 PAPER ANALYSES

PAPER	Permeability	Permeability	TENSILE	TENSILE	STRETCH	STRETCH
CODE	C.U./BAT	C.U./PDM.	g/mm	g/mm	%	%
M30.C2	39		BAT	PDM	BAT	PDM
M30.C2.EP 80.	78					
M30.C2.EP 130.	111					
M30.C2.EP 180.	164					
M80.C2	78					
M80C2.EP 130.	133					
M80C2.EP 180.	183					
M120C2	136					
M120C2.EP170	173					
M120C2.EP270	277					
M30.C2.LIN/8/5/150	129	187				
M80.C2.LIN/8/5/150	178	235				
M80.C2.LIN/8/300	266	369				
M120C2.LIN/8/5/150	221	271				

ADDITIVE AS % ANHYDROUS CITRIC ACID



TABLE 3

DATA RELATING TO PHYSICAL MEASUREMENTS ON THE PRODUCT.										
CIG. CODE.	PAPER CODE	TOTAL P.D. mm W.G	FILTER P.D. mm W.G	TOB. ROD. P.D. mm W.G	TOTAL WEIGHT mg	TOBACCO WEIGHT mg	TOBACCO DENSITY mg/cc	CIRCUMF mm	Permeability C.U./BAT	
M113	M30.C2								31	
M114	M30.C2.EP 80.								71	
M115	M30.C2.EP 130.								115	
M116	M30.C2.EP 180.								179	
M117	M80.C2								75	
M118	M80C2.EP 130.								134	
M119	M80C2.EP 180.								171	
M120	M120C2								107	
M121	M120C2.EP170								177	
M122	M120C2.EP270								269	
M123	M30.C2.LIN/8/5/150								125	
M124	M80C2.LIN/8/5/150								172	
M125	M80C2.LIN/8/5/300								260	
M126	M120C2.LIN/8/5/150								224	
CIGARETTE CONSTRUCTION:-		BLEND CHEMISTRY (% DWB):-								
FILTER LENGTH:-		TNA:-								
TOBACCO ROD LENGTH:-		RED.SUGARS:-								
		TOTAL SUGARS:-								

TABLE 4 MAINSTREAM YIELD DATA

CIG. CODE	PAPER CODE	NFDPM mg/cig	TNA mg/cig	CO mg/cig	PUFF NUMBER
M113	M30.C2				
M114	M30.C2.EP 80.				
M115	M30.C2.EP 130.				
M116	M30.C2.EP 180.				
M117	M80.C2				
M118	M80C2.EP 130.				
M119	M80C2.EP 180.				
M120	M120C2				
M121	M120C2.EP170				
M122	M120C2.EP270				
M123	M30.C2.LIN/8/5/150				
M124	M80.C2.LIN8/5/150				
M125	M80.C2.LIN8/5/300				
M126	M120C2.LIN8/5/150				

TABLE 5 DERIVED MAINSTREAM YIELD DATA

CIG. CODE.	PAPER CODE	PER PUFF DELIVERY DATA			DERIVED DATA		
		NFDPM	TNA	CO	% TNA in	CO to NFDPM	RATIO
		mg/puff	mg/puff	mg/puff	NFDPM		
M113	M30.C2						
M114	M30.C2.EP 80.						
M115	M30.C2.EP 130.						
M116	M30.C2.EP 180.						
M117	M80.C2						
M118	M80C2.EP 130.						
M119	M80C2.EP 180.						
M120	M120C2						
M121	M120C2.EP170						
M122	M120C2.EP270						
M123	M30.C2.LIN/8/5/150						
M124	M80.C2.LIN8/5/150						
M125	M80.C2.LIN8/5/300						
M126	M120C2.LIN8/5/150						





STRICTLY CONFIDENTIAL

D084/P/91/008178

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**CHEMISTRY OF MAINSTREAM AND SIDESTREAM SMOKE  
PRODUCED BY CIGARETTES WITH SPECIAL LOW SIDESTREAM  
CIGARETTE PAPERS**

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February 1992

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**TABLE 2 - SPECIFICATIONS OF DE MAUDUIT LSS CIGARETTE PAPERS**

CIGARETTE PAPER REFERENCE	BASIS WEIGHT (g/m <sup>2</sup> )	FILLER COMPOSITION	BURN ADDITIVES	PERMEABILITY OF BASE PAPER (CORESTA)
505 C5				13
1789 A7				6
1789 C7				5
1789 C7 EP				5*
1989				5
1989 C7				5
1989 C7 EP				5*
1989 C5				5
1989 C5 EP				5*

Ac = Acetate  
Cit = Citrate

\* Electrostatically perforated to 50 CORESTA

FIGURE 5 COMPARISON OF MAINSTREAM AND SIDESTREAM SMOKE PMWNF YIELD FOR NON-PERFORATED AND PERFORATED LSS PAPERS

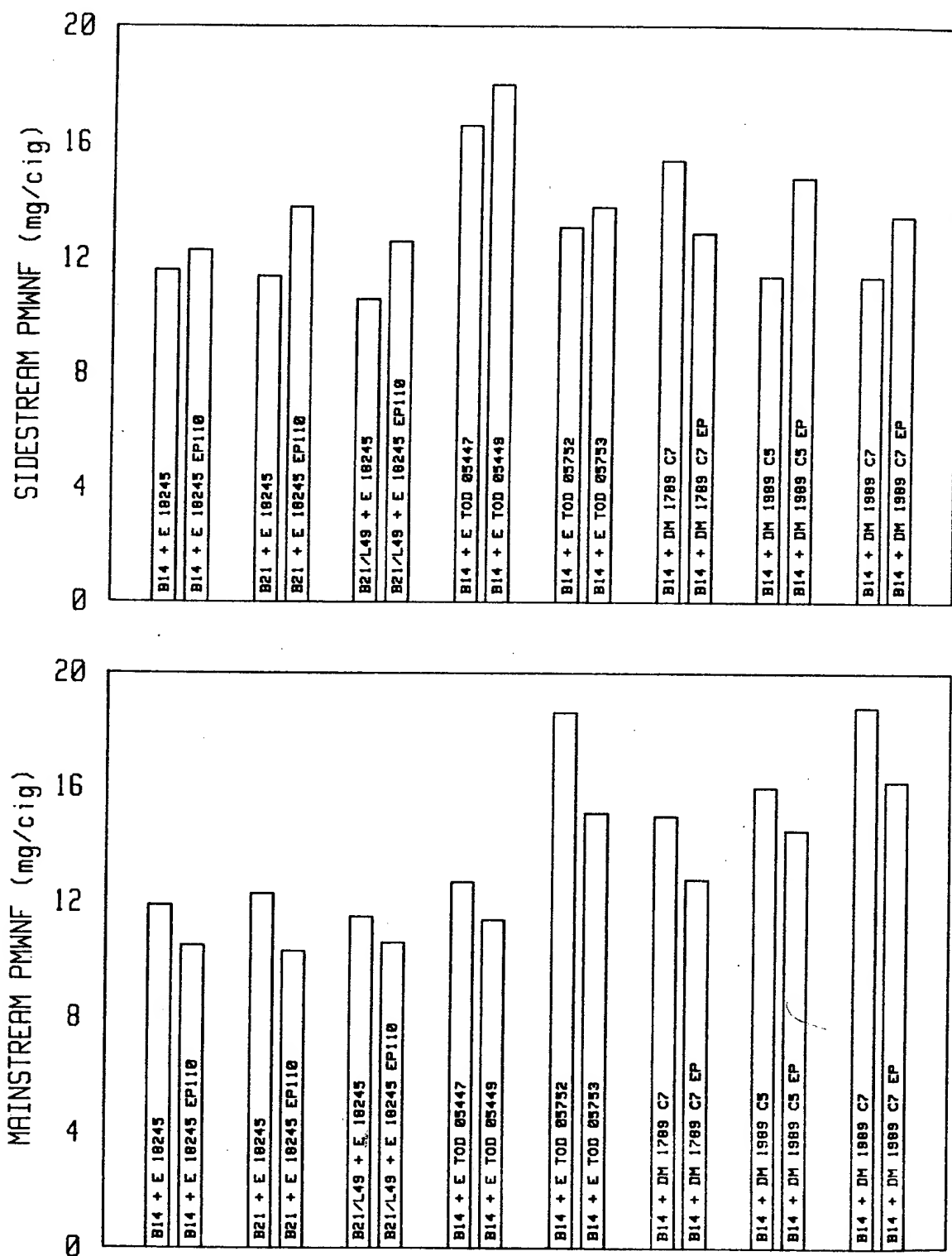


FIGURE 6 COMPARISON OF MAINSTREAM AND SIDESTREAM SMOKE NICOTINE YIELDS FOR NON-PERFORATED AND PERFORATED LSS PAPERS

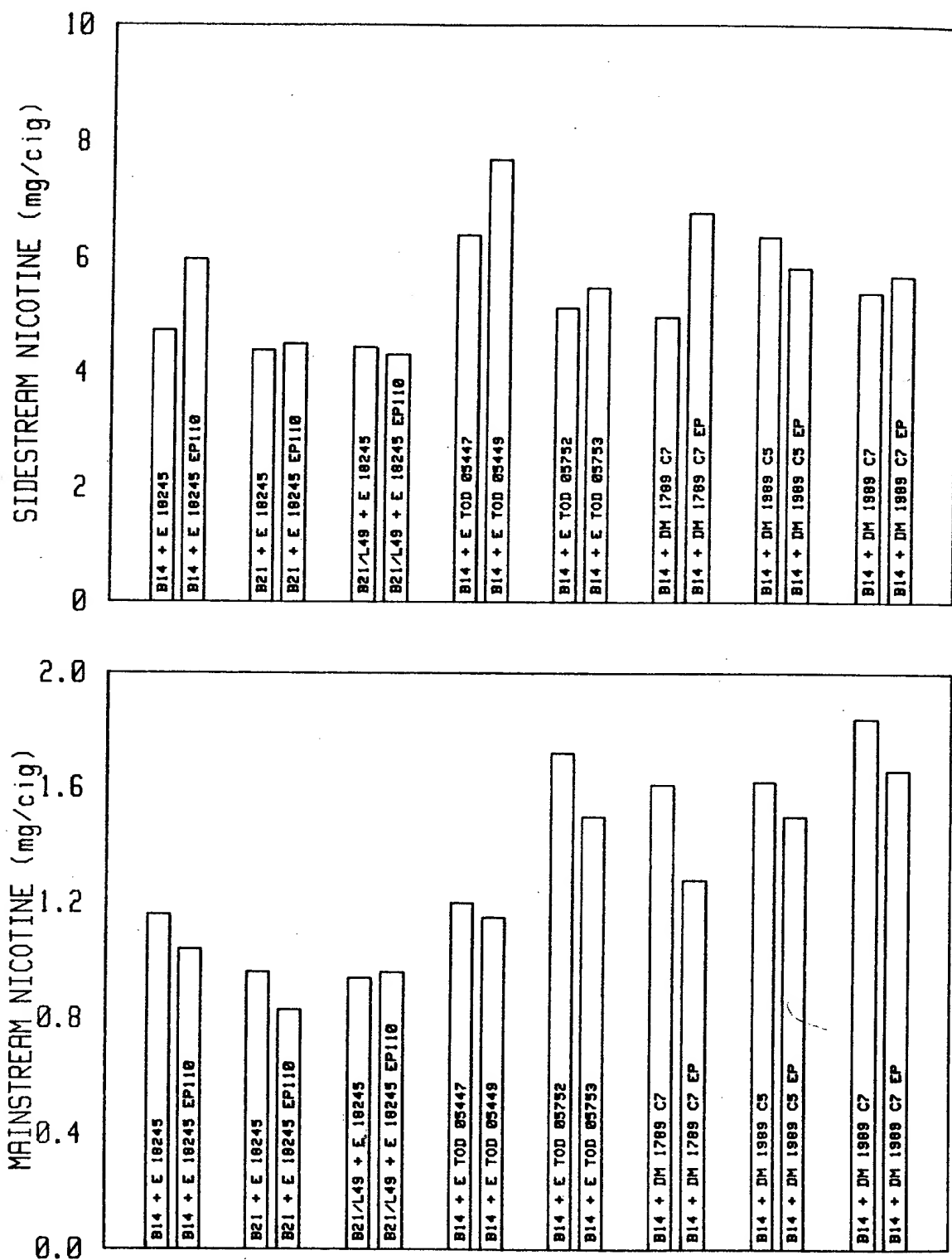


FIGURE 7 COMPARISON OF MAINSTREAM AND SIDESTREAM SMOKE CARBON MONOXIDE YIELDS FOR NON-PERFORATED AND PERFORATED LSS PAPERS

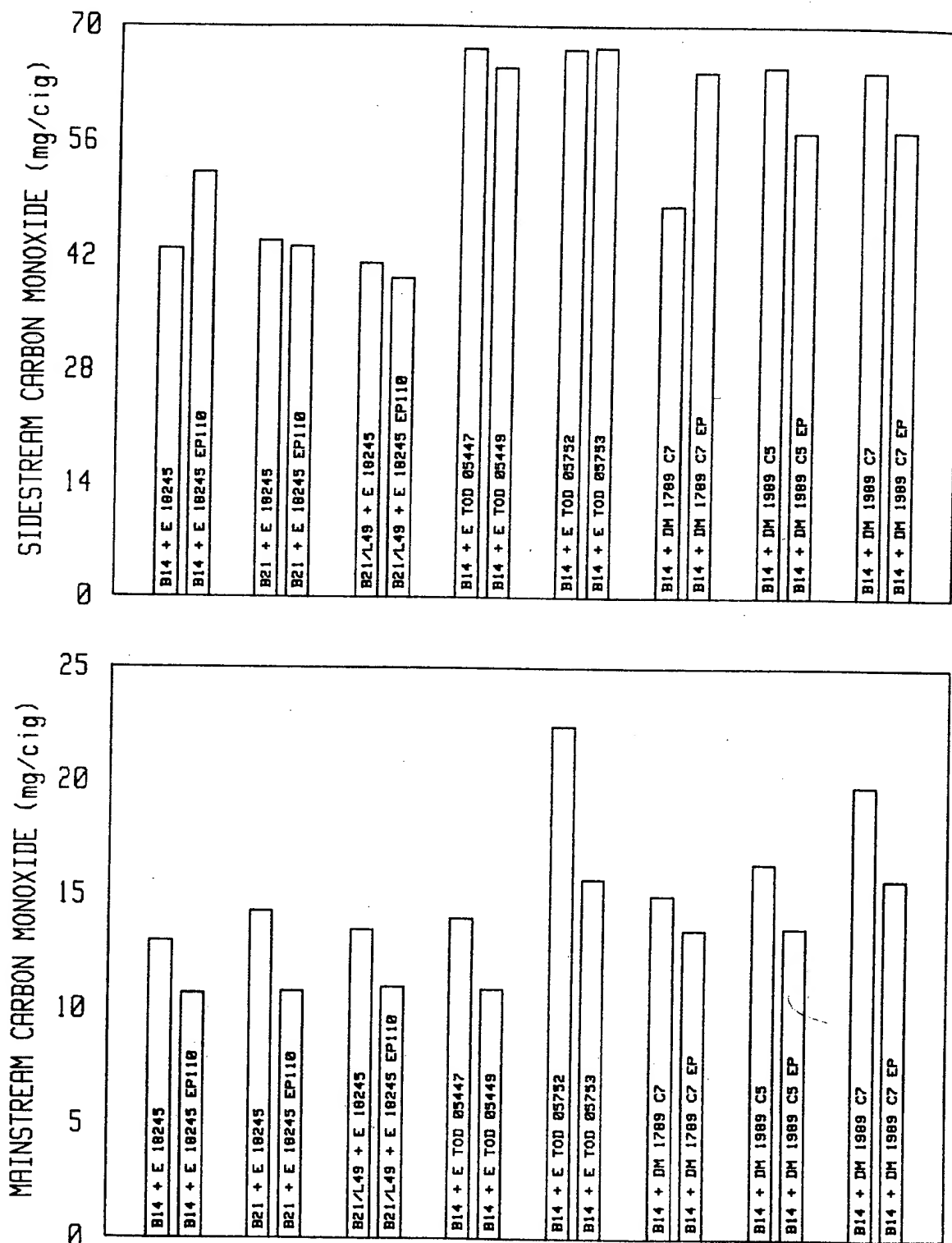
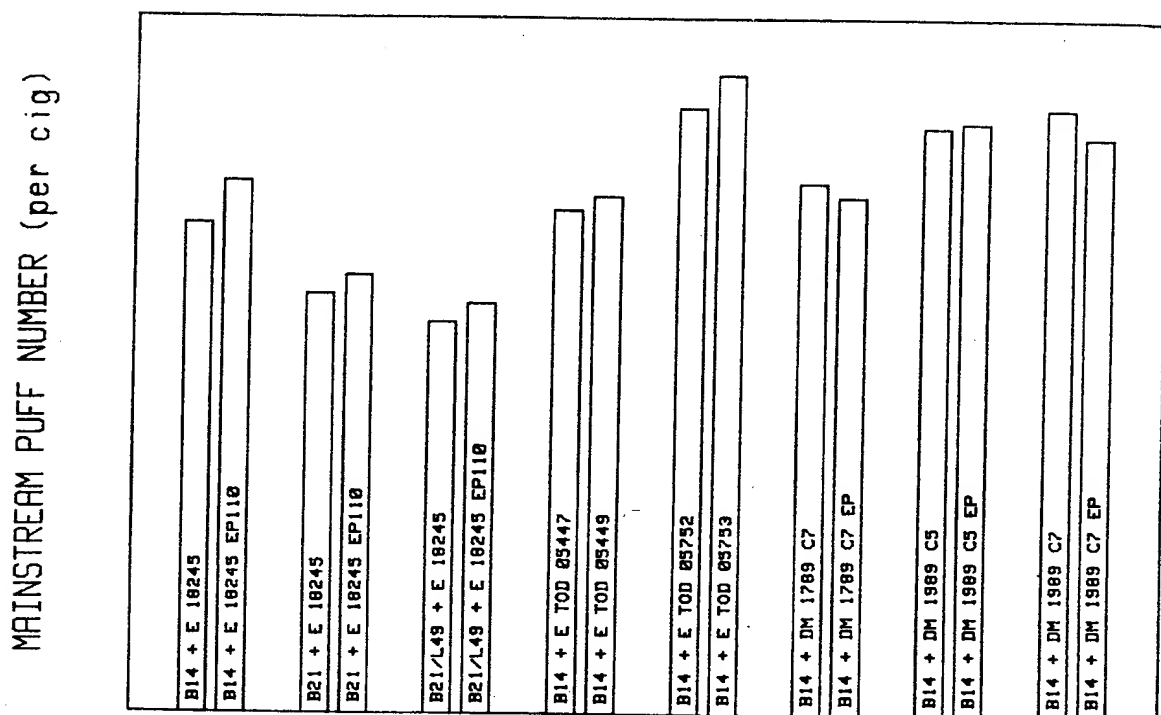


FIGURE 8 COMPARISON OF MAINSTREAM SMOKE PUFF NUMBERS  
FOR NON-PERFORATED AND PERFORATED LSS PAPERS

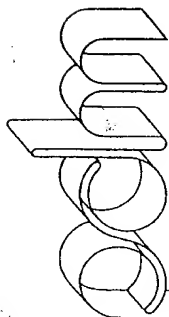


GRADE	SUP REF	LOADING %		PERMEABILITY C.U.		ADDITIVE 1 %		ADDITIVE 2		SUBSTANCE WEIGHT g/m <sup>2</sup>		OPACITY %		TENSILE g/mm		STRETCH %		FURFISH		
		Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.				
1	66M	22.0	29.0	2.0	7.0	1.3	1.50	2.50	DSP 0.3	21.5	24.5	0.5	68.0	74.0	1.2	1.4	2.4	0.2	flax	
2	22-100	25.0	39.0	2.0	6.0	2.0	0.30	0.70	DSP 0.3	21.0	23.8	0.5	68.5	75.0	1.1	1.4	2.4	0.2	wood	
3	305C	24.0	31.0	1.0	6.0	14.0	2.0	0.70	1.50	ACA 0.2	22.0	25.0	0.3	69.0	75.0	1.2	1.4	2.4	0.2	flax/wood
4	515C	23.0	29.0	1.0	9.0	15.0	2.0	0.70	1.10	ACA 0.5	21.0	24.0	0.3	68.0	74.0	1.1	1.4	2.4	0.2	flax
5	60RCF	15.5	24.5	1.0	40.0	60.0	5.0	0.45	0.95	ACA 0.2	27.0	30.0	0.5	69.5	74.5	1.2	1.3	2.3	0.2	flax/wood
6	135/I	21.5	28.5	2.0	10.0	15.0	2.0	0.70	1.10	ACA 0.5	21.0	24.0	0.6	68.0	76.0	1.1	1.2	2.4	0.2	flax
7	860C	26.0	32.0	2.0	10.0	16.0	2.0	0.90	1.40	ACA 0.5	22.5	25.5	0.5	70.0	78.0	1.1	1.2	2.4	0.2	wood
8	382PV	16.5	25.5	2.0	16.0	26.0	3.0	0.20	0.80	MAP 0.5	23.5	27.5	0.0	69.5	76.0	1.2	1.2	2.4	0.2	flax
9	136P	22.0	31.0	2.0	15.0	23.0	2.0	1.40	2.40	DSP 0.3	22.5	25.5	0.6	69.0	78.0	1.1	1.2	2.1	0.2	flax
10	430PP	21.0	28.5	2.0	16.0	24.0	3.0	0.50	0.70	MAP 0.5	21.5	24.5	0.6	69.0	78.0	1.1	1.2	2.4	0.2	flax
11	136/I	23.0	32.0	2.0	18.0	26.0	3.0	0.70	1.20	ACA 0.1	22.0	26.0	0.5	69.0	78.0	1.2	1.2	2.4	0.2	flax
12	72/80	24.0	33.0	2.0	18.0	28.0	3.0	1.15	2.15	SA 0.1	22.0	25.0	0.6	70.0	78.0	1.1	1.2	2.4	0.2	flax/wood
13	555 RP580C	23.0	32.0	2.0	34.0	66.0	5.0	0.75	1.35	ACA 0.5	25.5	28.5	0.0	69.0	78.0	1.1	1.2	2.4	0.2	flax
14	558	22.0	32.0	2.0	23.0	35.0	3.0	0.70	1.20	ACA 0.1	22.5	26.0	0.6	68.0	74.0	1.2	1.0	2.2	0.2	flax
15	137P	23.0	33.0	2.0	28.0	39.0	3.3	1.50	2.50	DSP 0.3	23.0	26.0	0.5	69.5	75.0	1.2	1.3	2.4	0.2	flax
16	110/6	25.0	34.0	1.5	31.0	47.0	4.0	0.70	1.20	ACA 0.2	23.0	26.0	0.5	69.0	78.0	1.2	1.2	2.4	0.2	flax
17	553	24.0	33.0	1.5	34.0	56.0	5.0	0.65	1.15	ACA 0.2	22.0	26.0	0.5	69.5	78.0	1.2	1.3	2.1	0.2	flax
18	130CR	23.0	32.0	2.0	40.0	80.0	5.0	0.70	1.20	ACA 0.12	23.0	27.0	0.6	69.5	75.0	1.2	1.2	2.4	0.2	flax/wood
19	511C	24.0	33.0	2.0	50.0	75.0	6.0	0.50	1.05	ACA 0.5	23.0	26.0	0.6	70.0	78.0	1.2	1.2	2.4	0.2	flax/wood
20	575C	24.0	33.0	2.0	50.0	75.0	6.0	0.50	1.05	ACA 0.5	23.0	26.0	0.6	70.0	78.0	1.2	1.2	2.4	0.2	flax/wood
21	95C	24.0	33.0	2.0	50.0	75.0	6.0	0.50	1.05	ACA 0.5	23.0	26.0	0.6	70.0	78.0	1.2	1.2	2.4	0.2	flax/wood
22	CAMHP2M	21.0	28.5	2.0	11.0	19.0	3.0	0.35	0.65	MAP 0.5	21.5	24.5	0.5	70.0	76.0	1.2	1.2	2.4	0.2	flax
23	CAMHP3M	27.4	37.2	2.0	47.7	69.7	6.0	0.55	1.00	ACA 0.1	23.5	27.5	0.5	70.0	76.0	1.2	1.2	2.4	0.2	flax/wood
24	CAMHP5M	22.5	27.5	2.0	21.0	24.0	3.0	0.35	0.65	MAP 0.5	21.0	24.0	0.5	70.0	76.0	1.2	1.2	2.4	0.2	flax
25	MCHP12/15M	22.5	27.5	2.0	90.0	140.0	8.0	0.40	1.00	ACA 0.5	24.0	28.0	0.6	70.0	75.0	1.2	1.3	2.3	0.2	flax/wood
26	150C	25.0	34.0	2.0	25.0	34.0	7.0	0.65	1.05	ACA 0.5	27.0	31.0	0.6	70.0	75.0	1.2	1.3	2.3	0.2	flax/wood
27	30RCF	15.5	24.5	1.0	22.5	33.5	3.0	0.45	0.95	ACA 0.2	24.0	28.0	0.6	70.0	78.0	1.2	1.2	2.4	0.2	wood
28	340 C2	24.0	33.0	2.0	18.0	40.0	4.0	1.80	2.25	ACA 0.5	27.0	30.0	0.5	69.0	75.0	1.2	1.3	2.3	0.2	flax/wood
29	65C	15.5	24.5	1.2	52.0	78.0	5.0	0.55	0.85	ACA 0.2	24.0	28.0	0.6	69.0	75.0	1.2	1.2	2.4	0.2	flax/wood
30	RSHP1	22.5	27.5	1.2	9.0	13.0	2.0	1.50	2.50	PST 0.5	27.0	31.0	0.6	70.0	75.0	1.2	1.3	2.3	0.2	flax/wood
31	66S	22.5	27.5	1.2	15.0	21.0	2.0	1.50	2.50	PST 0.5	21.0	23.0	0.6	70.0	78.0	1.2	1.2	2.4	0.2	wood
32	RSCA	22.0	30.0	1.0	12.0	20.0	2.0	0.20	0.70	DSP 0.3	23.0	32.0	0.5	69.0	76.0	1.2	1.4	2.2	0.2	wood
33	118RC	22.0	30.0	1.0	12.0	20.0	2.0	0.30	0.80	ACA 0.2	23.0	32.0	0.5	69.0	76.0	1.2	1.4	2.2	0.2	wood
34	ECST12656	24.0	33.0	2.0	24.0	28.0	2.0	0.15	0.45	ACA 0.5	23.6	26.0	0.5	71.0	78.0	1.2	1.4	2.2	0.3	wood
35	3099P	26.0	32.0	2.0	34.0	50.0	2.0	0.85	1.45	ACA 0.5	25.0	29.0	0.5	68.0	78.0	1.2	1.2	2.4	0.3	wood
36	3140C2EP	20.0	26.0	2.0	48.0	72.0	3.0	0.35	0.95	ACA 0.5	23.0	26.0	0.5	70.0	78.0	1.2	1.2	2.4	0.3	wood
37	30155	20.0	26.0	2.0	56.0	84.0	4.0	0.35	0.95	ACA 0.5	25.0	29.0	0.5	68.0	78.0	1.2	1.2	2.4	0.3	wood
38	370C/319C	22.5	31.0	2.0	12.0	21.0	2.0	0.80	1.40	ACA 0.1	22.0	25.0	0.5	69.0	74.0	1.2	1.2	2.4	0.3	flax/wood
39	66F 3120C	23.0	28.0	2.0	80.0	120.0	5.0	0.80	1.30	ACA 0.1	22.7	27.3	0.5	69.0	78.0	1.2	1.2	2.4	0.3	flax/wood
40	E39026	25.0	35.0	2.0	14.0	22.0	3.0	0.95	1.45	ACA 0.1	22.0	25.0	0.5	70.0	78.0	1.2	1.2	2.4	0.3	wood
41		24.0	33.0	2.0	24.0	36.0	4.0	0.70	1.20	ACA 1.2	21.5	25.5	0.5	68.0	73.0	1.2	1.1	2.2	0.2	flax/wood
42	MCHP5M	22.5	27.5	2.0	39.0	49.0	4.0	0.84	1.12	ACA 0.5	21.0	24.0	0.5	70.0	78.0	1.2	1.2	2.4	0.2	flax
43	WOOD BAT01	21.0	29.5	2.0	20.0	30.0	3.0	0.90	1.40	ACA 0.5	21.0	24.0	0.5	69.0	78.0	1.2	1.2	2.4	0.2	flax/wood
44	156	24.5	33.5	2.0	10.0	20.0	2.0	0.75	1.35	ACA 0.2	22.5	25.5	0.5	68.0	74.0	1.2	1.1	2.3	0.2	wood
45	95P	25.0	34.0	2.0	20.0	32.0	5.0	0.40	0.80	ACA 0.2	24.5	27.0	0.5	71.0	78.0	1.2	1.0	2.0	0.2	flax
46	95P	23.0	33.0	2.0	20.0	32.0	5.0	0.40	0.80	ACA 0.2	21.0	24.0	0.5	69.0	78.0	1.2	1.2	2.4	0.2	flax/wood
47	95J	23.0	33.0	2.0	64.0	96.0	8.0	0.30	0.70	MAP 0.1	23.5	26.5	0.5	68.0	73.0	1.2	1.2	2.4	0.2	flax/wood
48	850C	22.0	32.0	2.0	30.0	50.0	5.0	0.63	1.17	ACA 0.1	23.0	33.0	2.0	70.0	76.0	1.2	1.2	2.4	0.2	flax/wood
49	E553	21.0	31.0	2.0	40.0	60.0	5.0	0.85	1.10	ACA 0.1	23.0	33.0	2.0	70.0	76.0	1.2	1.2	2.4	0.2	flax/wood
50	375C	24.0	34.0	2.0	52.0	78.0	5.0	0.45	0.85	ACA 0.5	23.0	26.0	0.5	68.0	72.0	1.2	1.2	2.4	0.2	wood
51	130J	24.0	34.0	2.0	40.0	60.0	5.0	0.40	0.80	MAP 0.1	23.0	26.0	0.5	68.0	72.0	1.2	1.2	2.4	0.2	flax/wood
52	553M	24.0	34.0	2.0	100.0	140.0	5.0	0.40	0.80	ACA 0.5	22.5	25.5	0.5	69.0	78.0	1.2	1.2	2.4	0.2	flax/wood
53	14CR	18.5	23.5	2.0	36.0	54.0	5.0	0.40	0.80	ACA 0.5	23.0	26.0	0.5	69.5	75.0	1.2	1.3	2.3	0.2	wood/usp
54	553RC	24.0	33.0	2.0	36.0	54.0	5.0	0.40	0.80	ACA 0.5	22.0	25.0	0.6	68.0	73.0	1.2	1.2	2.4	0.2	flax/wood
55	12-656	23.0	32.0	2.0	22.0	34.0	5.0	2.00	0.40	ACA 0.5	27.0	31.0	0.6	70.0	78.0	1.2	1.2	2.4	0.2	flax/wood
56	HP553	25.0	34.0	2.0	40.0	60.0	5.0	0.60	1.10	ACA 0.2	21.5	24.5	0.6	69.5	78.0	1.2	1.2	2.4	0.2	flax
57	B137P	23.0	32.0	2.0	25.0	38.0	5.0	1.50	2.50	DSP 0.5	23.0	26.0	0.5	69.0	75.0	1.2	1.2	2.4	0.2	flax
58	95JF	16.5	25.5	1.2	64.0	90.0	8.0	0.30	0.60	MAP 0.1	22.0	25.0	0.5	68.5	78.0	1.2	1.2	2.4	0.2	wood
59	895C	23.0	33.0	2.0	60.0	100.0	9.0	0.70	1.20	ACA 0.1	24.0	29.0	0.5	69.5	75.0	1.2	1.2	2.4	0.2	flax/wood
60	525C	24.0	34.0	2.0	20.0	30.0	4.0	0.65	1.25	ACA 0.5	22.0	26.0	0.5	68.0	78.0	1.2	1.2	2.4	0.2	flax



SUP REF	LOADING %			PERMEABILITY C.U.			ADDITIVE 1 %			ADDITIVE 2			SUBSTANCE WEIGHT g/m <sup>2</sup>			OP			TENSILE g/mm			STRETCH %			FURNISH
	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	Max	S.D.	Min	S.D.	Min	Max	S.D.		
61	318C	24.5	33.5	2.0	10.0	20.0	4.0	0.75	1.35	ACA 0.5		22.5	25.5	0.5	68.0	78.0	1.1	80	3.5	1.2	2.4	0.2	flax/wood		
62	554A	23.0	33.0	2.0	21.0	31.0	4.0	0.70	1.10	ACA 0.5		23.7	26.3	0.5	69.0	78.0	1.2	75	3.5	1.2	2.4	0.2	flax		
63	JURQ U/C	21.5	30.5	2.0	80.0	120.0	4.0	0.60	1.10	ACA 0.5		24.0	28.0	0.5	69.0	78.0	1.2	65	3.5	1.2	2.4	0.2	flax/wood		
64	MCHP 6M	22.0	32.0	2.0	40.0	60.0	5.0	0.70	1.20	ACA 0.1		24.0	27.0	0.5	70.0	75.0	1.2	75	5.0	1.0	1.9	0.2	wood		
65	29-60 CRF	15.5	24.5	1.0	40.0	60.0	5.0	1.60	2.40	ACA 0.5		27.5	30.5	0.5	68.5	74.0	1.2	95	7.0	1.3	2.3	0.2	flax/wood		
66		15.0	35.0	3.0	38.0	62.0	6.0	0.70	0.90	ACA 0.5		23.5	27.5	0.5	68.0	80.0	1.2	80	5.0	1.2	2.4	0.2	wood		
67	318J	24.0	32.0	2.0	10.0	20.0	5.0	0.30	0.70	MAP 0.5		22.5	25.5	0.5	70.0	78.0	1.2	90	5.0	1.2	2.4	0.2	flax/wood		
68	123TAM	22.5	33.0	2.0	14.0	24.0	5.0	2.00	3.50	PST 1.0		23.3	25.7	2.0	66.0	75.0	2.0	88	5.0	1.2	2.0	0.2	wood		
69	121T	14.5	24.5	2.0	10.0	20.0	5.0	0.55	1.15	ACA 2.0		20.3	22.7	0.5	60.0	65.0	1.0	82	5.0	1.0	2.2	0.2	flax		
70	VERGE81	24.0	34.0	2.0	55.0	83.0	5.0	0.65	1.05	ACA 0.5		23.0	26.0	0.5	71.0	79.0	1.2	75	5.0	1.2	2.4	0.2	flax/wood		
71	MT33203	25.0	34.0	2.0	40.0	60.0	7.0	0.50	1.00	ACA 0.5		24.0	27.0	0.5	70.0	79.0	1.2	70	5.0	1.2	2.4	0.2	wood		
72	MT50CU	15.0	35.0	2.0	23.0	33.0	5.0	0.65	0.95	ACA 0.5		23.8	26.4	0.5	72.5	80.0	1.2	83	5.0	1.2	2.4	0.2	flax		
73	120C	21.5	30.5	2.0	80.0	120.0	8.0	0.60	1.10	ACA 0.5		24.0	28.0	0.5	69.0	79.0	1.2	65	5.0	1.2	2.4	0.2	flax/wood		
74		15.0	25.0	2.0	15.0	21.0	5.0	1.00	2.00	ACA 0.5		21.0	23.0	0.5	68.0	80.0	1.2	70	5.0	1.2	2.4	0.2	wood		
75	1441SUPAIR	12.5	16.5	2.0	54.0	62.0	5.0	0.70	1.30	PST 0.5	0.70 1.30 MAP 0.5	20.0	24.0	0.5	69.0	79.0	1.2	84	5.0	1.2	2.4	0.2	flax		
76	1441	12.5	16.5	2.0	10.0	14.0	5.0	0.70	1.30	PST 0.5	0.70 0.30 MAP 0.5	20.0	24.0	0.5	71.0	89.0	1.2	65	5.0	1.2	2.4	0.2	flax/wood		
77	150EP200	25.0	34.0	2.0	180.0	240.0	10.0	0.65	1.05	ACA 0.5		24.0	28.0	0.5	69.5	75.0	1.2	75	5.0	1.2	2.0	0.2	flax/wood		
78	130CR EP100	23.0	32.0	2.0	80.0	120.0	10.0	0.70	1.20	ACA 0.1		23.0	27.0	0.5	69.5	79.0	1.2	90	5.0	1.2	2.4	0.2	flax		
79	556EP65	23.0	32.0	2.0	52.0	78.0	5.0	0.70	1.10	ACA 0.1		21.5	24.5	0.5	69.0	79.0	1.2	90	5.0	1.2	2.4	0.2	flax		
80	556EP120	23.0	32.0	2.0	96.0	144.0	10.0	0.70	1.20	ACA 0.5		22.5	26.0	0.5	68.0	79.0	1.2	80	5.0	1.2	2.4	0.2	flax		
81	3130C	21.0	31.0	0.6	79.0	135.0	5.0	0.56	1.32	ACA 0.5		25.8	28.2	0.5	68.0	90.0	1.2	68	2.0	0.8	1.4	0.5	flax/wood		
82	3140C2	21.0	31.0	0.6	120.0	200.0	7.0	1.50	3.00	ACA 0.5		25.8	28.2	0.5	68.0	90.0	1.2	80	5.0	0.8	1.2	0.2	flax/wood		
83	NOT ASSIGNED																								
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86	NOT ASSIGNED																								
87	NOT ASSIGNED																								
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89	3140C2 EP320	21.0	31.0	0.6	235.0	380.0	8.0	1.50	3.00	ACA 0.5		25.8	28.2	0.5	68.0	80.0	1.2	68	2.0	0.8	1.2	0.2	flax/wood		
90																									
91	52522	22.0	32.0	2.0	14.0	26.0	5.0	0.35	0.65	ACA 0.5		21.0	23.5	0.6	70.0	78.0	1.2	75	7.0	1.2	2.4	0.2	flax		
92	52522 EP75	22.0	32.0	2.0	47.0	77.0	5.0	0.35	0.65	ACA 0.5		21.0	23.5	0.6	70.0	78.0	1.2	70	7.0	1.0	2.4	0.2	flax		
93	35C22	22.0	32.0	2.0	24.0	38.0	4.0	0.70	1.20	ACA 0.5		20.5	23.0	0.6	69.0	75.0	1.2	70	5.0	1.1	2.4	0.2	flax		
94	35P22	22.0	32.0	2.0	24.0	38.0	5.0	0.30	0.70	MAP 0.5		20.5	23.0	0.6	69.0	78.0	1.2	70	5.0	1.1	2.1	0.2	flax		
95	55C23	22.0	32.0	2.0	39.0	63.0	5.0	0.60	1.00	ACA 0.5		22.5	25.0	0.6	70.0	78.0	1.2	65	5.0	1.0	2.4	0.2	flax		
96	35C25	22.0	32.0	2.0	24.0	38.0	5.0	0.70	1.20	ACA 0.5		24.0	26.5	0.5	71.0	80.0	1.2	80	5.0	1.1	2.4	0.2	flax		
97	525 25 EP75	23.0	33.0	2.0	47.0	77.0	8.0	0.35	0.65	ACA 0.2		24.0	26.5	0.5	72.0	80.0	1.2	80	5.0	1.0	2.4	0.2	flax		
98		23.0	33.0	2.0	30.0	50.0	5.0	0.70	1.30	ACA 0.2		23.8	26.2	0.6	68.0	80.0	1.2	75	5.0	1.1	2.4	0.2	wood		
99	8575C	23.0	33.0	2.0	30.0	40.0	5.0	0.70	1.30	ACA 0.2		24.3	26.7	0.6	69.0	79.0	1.2	35	5.0	1.0	2.4	0.2	wood		
100	130CR EP100	22.0	32.0	2.0	45.0	75.0	5.0	0.65	1.25	ACA 0.2		23.0	26.2	0.8	68.0	75.0	1.2	75	5.0	1.1	2.4	0.2	wood		
101	8556 EP120	23.0	33.0	2.0	95.0	155.0	10.0	0.75	1.35	ACA 0.2		23.0	26.2	0.8	68.0	75.0	1.2	75	5.0	1.1	2.4	0.2	wood		
102	8556 EP160	23.0	33.0	2.0	95.0	155.0	10.0	0.75	1.35	ACA 0.2		23.8	26.3	0.6	68.0	75.0	1.2	75	5.0	1.1	2.4	0.2	wood		
103	8575C EP160	22.0	32.0	0.8	125.0	205.0	6.0	0.85	1.25	ACA 0.5		24.3	26.7	0.5	69.0	90.0	1.2	70	5.0	0.9	1.2	0.2	wood		
104	354 1C	23.0	33.0	2.0	34.0	56.0	6.0	0.70	1.30	ACA 0.2		23.5	26.0	0.5	69.0	78.0	1.2	80	5.0	1.0	2.4	0.2	flax/wood		
105	154 C2	23.0	33.0	0.5	34.0	56.0	5.0	1.40	2.60	ACA 1.0		24.5	27.0	1.0	66.0	72.0	1.2	80	5.0	1.0	2.0	0.2	wood		
106		25.0	35.0	2.0	24.0	32.0	5.0	0.85	1.15	ACA 0.5		23.0	26.0	0.5	67.0	74.0	1.2	88	5.0	1.0	2.0	0.2	wood		
107	154	23.0	33.0	2.0	25.0	35.0	5.0	1.25	1.75	ACA 1.0		23.0	26.0	2.0	68.0	74.0	2.0	88	5.0	1.0	2.0	0.2	wood		
108		23.0	33.0	2.0	26.0	39.0	5.0	1.50	2.50	DSP 0.5		22.5	25.5	0.5	68.5	75.0	1.2	75	5.0	1.3	2.4	1.0	wood		
109		23.0	32.0	2.0	29.0	41.0	5.0	0.55	0.95	ACA 2.0		22.0	26.0	2.0	66.0	73.0	2.0	88	5.0	1.0	2.0	2.0	wood		
110		24.0	33.0	2.0	64.0	96.0	5.0	0.70	1.30	ACA 1.0		23.5	27.0	0.3	60.0	75.0	1.2	85	3.5	1.2	2.2	2.0	wood		
111	29 80 CF	23.0	33.0	2.0	34.0	56.0	6.0	0.70	1.30	ACA 0.2		23.5	26.0	0.5	69.0	78.0	1.2	80	5.0	1.0	2.4	0.2	flax/wood		
112		25.5	35.5	2.0	24.0	32.0	4.0	0.25	0.75	ACA 2.0		23.0	27.0	2.0	69.0	75.0	2.0	88	5.0	1.0	2.5	2.0	wood		
113		23.5	32.0	2.0	29.0	41.0	5.0	0.75	1.25	ACA 2.0		23.0	26.0	2.0	68.5	73.0	2.0	88	5.0	1.0	2.0	2.0	wood		
114	NOT USED																								
115	NOT USED																								
116	NOT USED																								
117	NOT USED																								
118	NOT USED																								
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125	NOT USED																								

GRADE	SUP REF	LOADING %		PERMEABILITY C.U.		ADDITIVE 1 %		SUBSTANCE WEIGHT g/m <sup>2</sup>		OPACITY %		TENSILE g/min		STRETCH %		FURNISH
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
126	NOT USED															
127	329C EP65	23.0	33.0	50.0	80.0	5.0	0.75	1.35	22.8	25.5	2.0	85	7.0	1.0	2.5	flax/wood
128	315 PV	20.0	30.0	10.0	18.0	5.0	0.26	0.65	21.5	24.0	2.0	90	5.0	1.2	2.5	flax/wood
129	72 GO	23.0	33.0	19.0	31.0	5.0	1.35	2.45	24.3	26.7	2.0	85	6.0	1.1	2.5	flax/wood
130	MIST D EP 900	23.0	33.0	69.0	111.0	5.0	0.75	1.35	22.3	24.7	1.0	85	5.0	1.1	2.5	flax/wood
131	515 C EP60	23.0	33.0	46.0	74.0	5.0	0.75	1.35	23.3	25.7	2.0	85	5.0	1.2	2.5	flax/wood
132	NOT USED															
133	NOT USED															
134																
135	541 C	23.0	35.0	20.0	30.0	3.0	0.40	0.70	23.0	27.0	0.7	100	5.0	0.8	2.5	flax
136	824 M100	16.5	20.5	70.0	104.0	5.0	0.25	0.67	23.0	26.0	2.0	73	5.0	0.8	2.2	flax/wood
137	824 C100	13.0	20.0	600.0	900.0	5.0	0.45	0.65	23.5	26.5	1.0	75	7.0	0.7	2.0	flax/wood
138	BAT GERMANY															
139	BAT GERMANY															
140	BAT GERMANY															
141	BAT GERMANY															
142	BAT GERMANY															
143	87 24 FLC	23.0	33.0	19.0	31.0	5.0	0.35	0.65	23.8	26.2	1.0	80	5.0	1.1	2.0	flax/wood
144	130 CR2	22.0	32.0	38.0	62.0	2.0	1.40	2.60	25.5	27.0	0.5	75	5.0	1.0	2.0	flax/wood
145	378 A	22.0	32.0	50.0	80.0	5.0	1.25	2.25	24.0	26.5	1.0	75	5.0	1.0	2.0	flax/wood
146	BP33	23.0	33.0	25.0	41.0	5.0	0.70	1.30	23.5	26.0	1.0	80	7.0	1.0	2.4	wood
147	118J															
148	NOT USED															
149	NOT ASSIGNED															
150	FLET INDIA															
151	FLET IVYVEG	1.5	4.5	1.0	10.0	5.0			13.0	23.0	0.5	80	5.0	1.0	2.2	flax/wood
152	PDM BUGLER															
153	PDM BUGLER															
154	MANCHESTER															
155	MANCHESTER															
156	MANCHESTER	23.0	33.0	20.0	32.0	5.0	0.40	0.80	24.5	27.0	1.0	85	7.0	1.0	2.5	flax
157	MANCHESTER															
158	B24M100 EP15	16.5	20.5	110.0	190.0	5.0	0.25	0.67	23.0	26.0	1.0	100	5.0	0.5	1.2	flax
159	572 C 150	23.0	33.0	60.0	150.0	5.0	1.75	2.25	23.0	29.0	1.0	80	5.0	1.0	2.0	flax
160	396C	22.0	32.0	60.0	100.0	5.0	0.80	1.40	24.5	27.0	1.0	75	5.0	0.8	2.0	flax/wood
161	L50C EP135	22.0	32.0	103.0	167.0	5.0	0.65	1.15	24.3	26.7	1.0	70	5.0	1.0	2.5	wood
162	BAT 16 W	22.0	32.0	23.0	35.0	3.0	0.70	1.20	22.5	26.0	0.2	80	6.0	1.0	2.2	wood
163	BAT144 W	21.5	31.5	42.0	62.0	5.0	1.70	2.20	25.0	27.5	0.2	75	5.0	1.0	2.2	wood
164																
165																
166		16.5	25.5	64.0	96.0	8.0	0.80	1.10	27.0	33.0	0.6	100	7.0	1.4	2.3	flax/wood
167																
168																
169																
170																
200	PW 23 15AD	7.5	12.5	6.0	10.0	2.0			22.0	24.0	0.2	136	5.0	1.0	2.0	wood
221	PW26	9.0	14.0	5.0	13.0	5.0			24.5	27.5	1.0	130	7.0	0.5	1.5	wood



# ROTHMANS / U.K. : SIDE STREAM SAMPLES

SEPTEMBER 1990

DATE	GRADE	POROSITY		BURNING AGENT	RATE %	WEIGHT gsm	FILLER %	OPACITY %
		BASIC	FINAL					
13/04/90	1789 C7	5.0						
10/05/90	1989	5.0						
	1989 C7	5.0						
20/06/90	1989 C5	5.0						
28/06/90	1989 C7	5.0						
	1989 A5	5.0						
	1789 C7 EP1	5.0	53.0					
	1789 C7 EP2	5.0	85.0					
26/07/90	1989 C7 EP1	5.0	55.0					
	1989 C5 EP1	5.0	55.0					
	1989 C7 EP1	5.0	55.0					
	1789 C7 EP1	5.0	53.0					
	304 P	4.0						